Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

GENERAL NOTES.

THE FIRST PACIFIC COAST MEETING OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, AUGUST 2-7, 1915.

This first Pacific Coast meeting proved to be one of the most interesting and profitable in the history of the Association and of the affiliated societies which make up the sections of the Association. The thanks of all are due to the very efficient Pacific Coast Committee for the perfection of its arrangements for the meetings, social functions, and excursions of the individual sections, and in particular for the excellent printed general program, which so completely anticipated every need for information on the part of the visiting scientists. With meetings held at San Francisco, Berkeley, and Stanford, some confusion might have been expected, but, thanks mainly to the complete information given in the official program, none was experienced.

In reporting these meetings for the readers of the *Publications* it is our intention to mention briefly some of the more general features of the conference, and to give in more detail the meetings of the American Astronomical Society.

The meetings were inaugurated by a joint session of the Association and affiliated societies at the Scottish Rite Auditorium on Monday morning, where Dr. W. W. CAMPBELL, President of the Association, very happily introduced for brief speeches of welcome to the visiting scientists, Mr. WM. H. CROCKER, Dr. B. I. WHEELER, Dr. D. S. JORDAN, Dr. H. F. OSBORN, and Dr. L. O. HOWARD. Following these Dr. CAMPBELL gave his presidential address on the subject, "Science and Civilization." This able address held the interest and attention of the large audience, and we regret that lack of space prevents giving an abstract of it here; it will be published in full in *Science*.

No sessions were held on Monday afternoon, but a very enjoyable general reception was given that evening at the California Building on the Exposition grounds.

The rest of the week was given up to the meetings of the various sections of the Association at Berkeley and at Stanford. On Wednesday over four hundred members and friends were taken to Stanford on a special train. After a general meeting in the Assembly Hall of the University, at which Chancellor JORDAN made a short address of welcome, responded to by Dr. CAMPBELL, luncheon was served in the Memorial Court of the quadrangle. Opportunity was given to inspect the buildings and grounds, and sessions of the various societies were held during the afternoon.

No sessions of the sections were held in the evenings but addresses before the Association as a whole were given in the Scottish Rite Auditorium, San Francisco, on Tuesday, Thursday and Friday evenings. The speakers and subjects, in order, were: Professor R. A. DALY, Harvard University, *Problems of the Pacific Islands;* Professor W. B. SCOTT, Princeton University, *The Isthmus of Panama and its Influence on the Animal Life of North and South America;* Dr. P. S. REINSCH, American Ambassador to China, *The Economic Future of the Pacific.*

Wednesday evening was set aside for the annual dinners and reunions of the various societies.

The meetings of the American Astronomical Society were well attended, and only the fact that quite a proportion of the papers were perforce read by title made it possible to get thru the very full list of papers presented. Among those present at the sessions were:—

ABBOT, C. E. ADAMS, AITKEN, ALTER, APPLE, ASH, BABCOCK, BAUER, BRACKETT, BRASCH, BURCKHALTER, W. W. CAMPBELL, CEBRIAN, COSTA, CRAWFORD, CURTIS, CUSHING, C. L. DOOLITTLE, DOUGLASS, EDWARDS, EICHELBERGER, EINARSSON, FATH, GRAY, G. E. HALE, W. H. HALE, HAMILTON, HEDRICK, JOY, A. S. KING, KLOTZ, LARKIN, LEE, LEUSCHNER, MARTENS, MEGGERS, MEYER, MITCHELL, MOLERA, MOORE, MORSE, MOTHERWELL, NICHOLSON, PADDOCK, PLASKETT, RICHARDSON, RIGGE, SCHLESINGER, SEARES, SEGLA, SHAPLEY, STEBBINS, ST. JOHN, SWEZEY, TOWNLEY, TRUMAN, TUCKER, TURNER, VROOMAN, WRIGHT, ZIEL, and the Misses FURNESS, HAR-

WOOD, HOBE, LAMSON, O'HALLORAN, SCHUMACHER, SCHWARTZ, and WARE.

On Tuesday morning a joint session of Sections A and B of the Association, the American Astronomical Society, the American Mathematical Society, and the American Physical Society was held at Berkeley, Professor LEUSCHNER, Vice-president of Section A, presiding. The addresses on this occasion were two in number: "The Human Significance of Mathematics," by Professor C. J. KEYSER, of Columbia University, and "The Work of a Modern Observatory," by Director G. E. HALE. It is impossible to give an abstract of Professor KEYSER's powerful and deeply philosophical address, and it is to be hoped that this will soon be published in full. Were it possible to summarize this theme in a few sentences, it might perhaps be said that the title might well have been, "The Ethical Significance of Mathematics," for the speaker did not touch at all upon the more material points of contact which mathematics has with modern life and civilization, but rather upon the importance which this great body of science has for the souls of men; from an ethical and philosophical standpoint, the existence of this great realm of pure thought, of absolute truth, of undeviating law, is of incalculable value.

Director HALE's very interesting address is published elsewhere in this number; it was profusely illustrated with lantern slides and by a number of experiments illustrating the theories of sun-spots.

After a pleasant luncheon at the Faculty Club, where the astronomers, physicists, and mathematicians were the guests of Professors HASKELL, LEUSCHNER, and LEWIS, the Astronomical Society met in joint session with the Astronomical Society of the Pacific in the Student's Observatory. At this session the Bruce Gold Medal of the Astronomical Society of the Pacific was presented to Dr. CAMPBELL. The very happy address of presentation was made by Dr. CRAWFORD, and is printed in this number of the *Publications*.

The following papers were presented at the various sessions of the Society:—

1. Frank Schlesinger: Description of the Thaw Refractor of the Allegheny Observatory.

2. W. W. Campbell and J. H. Moore, Lick Observatory: On the Radial Velocities of the Planetary and Irregular Nebulæ.

3. S. D. Townley, Stanford University: The Designation of Variable Stars.

4. S. D. Townley: The Variable 6, 1914.

5. R. G. Aitken, Lick Observatory: A Statistical Study of Double Stars in the Northern Sky.

6. Jacob Kunz and Joel Stebbins, University of Illinois: Progress with the Photo-Electric Photometer.

7. H. D. Curtis, Lick Observatory: Nebular Proper Motions.

8. A. H. Joy, Yerkes Observatory, (introduced by O. J. Lee): Investigation of the Cluster M 37 for Proper Motion from Plates taken with the 40-inch Refractor of the Yerkes Observatory.

9. W. H. Wright, Lick Observatory: The Spectra of the Gaseous Nebulæ, and Some Points of Corespondence between Them and Other Celestial Spectra.

10. E. E. Barnard, Yerkes Observatory: Photographic Comparison of a Bright Nebula with a Dark One, and the Possible Luminosity of Space.

11. Margaret Harwood: The Light Curve of *Eros* in 1914.

12. W. S. Adams, Mount Wilson Solar Observatory: The Radial Velocities of the More Distant Stars.

13. Elliott Smith, Cincinnati Observatory: The Evolution of a Gravitating, Rotating, Condensing Fluid.

14. S. A. Mitchell, McCormick Observatory: Parallax Work at the McCormick Observatory.

15. S. A. Mitchell: Request for Meteor Observations.

16. O. J. Lee and A. H. Joy, Yerkes Observatory: Stellar Parallaxes derived from Plates taken with the 40-inch Refractor of the Yerkes Observatory.

17. O. J. Lee, Yerkes Observatory: Preliminary Report on General Stellar Parallaxes in Zone + 45° of the Selected Areas.

18. A. van Maanen, Mt. Wilson Solar Observatory: The Determination of Stellar Parallaxes with the 60-inch Reflector at Mt. Wilson.

19. Frank D. Urie, Elgin Observatory: Chronographic Registration of the Arlington Radio Time Signals.

20. Frank D. Urie: Chronographic Determination of the Lag Between the Arlington and Key West Radio Time Signals.

21. R. H. Tucker, Lick Observatory: The Places of the A. G. Zone Catalogs.

22. Frank W. Very, Westwood Observatory: Fundamental Distinctions Special to the Process of Transmission of Terrestrial Radiation by the Atmosphere, and the Value which is Obtained for the Coefficient of Transmission when these are Considered.

23. Frank W. Very: Spectrum of the Earthshine.

24. L. A. Bauer, Carnegie Institution: General Results of the Magnetic Survey of the Pacific Ocean by the Carnegie Institution of Washington.

25. C. G. Abbot, Smithsonian Institution: The Variability of the Sun.

26. D. P. Todd, Amherst Observatory: Photographing the Corona of August 21, 1914, in Russia.

27. F. W. Rigge, Creighton University: The Solar Eclipse of 1916, December 24th-25th.

28. A. E. Douglass, University of Arizona: Correlation between Sun-spots, Weather, and Tree Growth.

29. A. E. Douglass: Photographs of the Zodiacal Light and Gegenschein.

30. C. E. St. John, W. S. Adams, and Miss Louise Ware, Mt. Wilson: Recent Observations of the Rotation of the Sun.

31. Miguel Selga, Manila Observatory: The Orbit of the Spectroscopic Binary Sigma *Scorpii.*

32. F. H. Seares, Mt. Wilson: Photographic Magnitudes of Stars in the Selected Areas.

33. Harlow Shapley, Mt. Wilson: Magnitudes and Colors of Stars in the *Hercules* Cluster.

34. F. C. Jordan, Allegheny Observatory: Photographic Photometry with the 30-inch Thaw Refractor.

35. D. Alter, University of California: The Orbit of *Æthra.*

36. Annie J. Cannon, Harvard Observatory: The New Draper Catalog.

37. C. E. Adams, Lick Observatory: Preliminary Note on the Determination of the Moon's Place by Photography.

38. W. C. Rufus: The Spectra of Stars belonging to Class R.

39. H. S. Leavitt, Harvard Observatory: A Star having a Large Color Index.

40. G. F. Paddock, Lick Observatory: Formulæ for Spectroscopic Binary Orbits of Small Eccentricity and for Systems showing Two Spectra.

41. G. F. Paddock: The Spectroscopic Binary v_4 *Eridani.*

42. A. F. Beal, Allegheny Observatory: Note on η *Orionis.*

43. Z. Daniel: Note on VV *Orionis.*

44. C. D. Perrine, Córdoba Observatory: An Apparent Relation between the Inherent Velocities of the Brighter Stars and Their Magnitudes.

45. C. D. Perrine: Some Peculiarities of an Apparently Semi-systematic Nature in the Radial Velocities of the Brighter Stars of different Spectral Classes, and Their Effect upon the Solar Motion.

46. S. B. Nicholson, University of California: The Ninth Satellite of *Jupiter.*

47. R. K. Young, Dominion Observatory: The Mean Distance of the Stars Whose Radial Velocities, Proper Motions, and Parallaxes have been Determined.

Many of these papers were illustrated by lantern slides; others by charts and diagrams. Abstracts will be printed later in *Popular Astronomy* in the report of the Secretary of the meeting, and most of the papers will be published in full in various technical journals.

The banquet of the astronomers and mathematicians forming Section A of the Association was held on Wednesday evening at the Hotel Oakland, with fifty-one present, and was a most enjoyable occasion.

Some fifty members of the same section visited Mt. Hamilton on Friday, August 6th. During the afternoon a business meeting of the Astronomical Society was held, at which the announcement was made that Professor KAPTEYN was elected an Honorary Member by the Council. Reports of committees were received and officers were balloted for and elected as follows:—

President, E. C. PICKERING.
First Vice-President, W. W. CAMPBELL.
Second Vice-President, F. SCHLESINGER.
Secretary, PHILIP FOX.
Treasurer, Miss ANNIE J. CANNON.
Councillors, E. B. FROST, J. STEBBINS.

At five o'clock the visitors proceeded to the "camp ground" near East Peak, where tables had been set up under the fine oaks at this spot, and partook of a buffet supper with the families of the Lick Observatory staff. In the evening a number of objects were observed with the 36-inch, while at the 12-inch telescope Dr. STEBBINS demonstrated the use of the photo-electric cell. The visitors left for San Jose about ten P. M. The next morning a trip was made to Pleasanton, where Mrs. HEARST had invited the members of the astronomical and mathematical sections to be her guests at her country place, the Hacienda del Pozo de Verona. The recollection of this beautiful spot will doubtless remain with all long after all other incidents of the convocation week are forgotten.

It gives us particular pleasure to record that the Northwestern University, Evanston, Illinois, at commencement, June 9, 1915, conferred upon SHERBURNE WESLEY BURNHAM the degree of Doctor of Science. In making this announcement, Professor BURNHAM was characterized as—

"An astronomer of international renown, an investigator who, starting as an amateur with an instrument of small power, has given distinction to the two greatest telescopes in the world; a discoverer who has made us acquainted with more than a thousand new double-suns; a signal example of devotion to science unswerved by any distraction; a lover of truth; a generous friend whose achievements we are glad to recognize and whose distinction we cannot augment."

We regret to record the death, on May 14, 1915, of Professor Dr. OSWALD LOHSE, chief astronomer at the Royal Astrophysical Observatory at Potsdam, Germany. Born in 1845, Dr. LOHSE became Professor H. C. VOGEL'S assistant at the observatory at Bothkamp in 1870, and when the latter, four years later, accepted the directorship of the observatory then being built at Potsdam, he chose LOHSE as his first assistant. His principal researches relate to surface details and physical peculiarities of the planets *Mars* and *Jupiter,* but he did useful work in observing double stars and computing double-star orbits, and in spectroscopy.

It is reported that the position left vacant by his death has been filled by Professor Dr. HANS LUDENDORF.

ASSOCIATED OBSERVERS OF MARS.

DEAR SIR:—

During the period of the past opposition of *Mars* the writer issued a series of reports on the planet, which were published in *Popular Astronomy.* Nine numbers have so far appeared, and others are in process of preparation. During part of the time, when the changes taking place upon the surface were most readily seen, the reports appeared at intervals of a month, the plan being to issue a regular monthly record or news sheet of the happenings upon the planet. These changes were partly meteorological and partly related to the growth of vegetation, as indicated by the changes in the appearance of the maria and the canals. A system of co-operation by correspondence was established with other observers in different parts of the world, which resulted, it is believed, in mutual advantage. It is now proposed to extend this system so as to include a still larger number of observers.

The particular object in mind depends on the fact that the period of rotation of *Mars,* is about forty minutes longer than that of the Earth, and consequently any single observer can only study a given region of the planet for a few days at a time. Other regions then come into view, and the first region is not again seen by him for about four weeks. Much of interest may happen in that region in the meantime, and interesting changes may take place which will thus be entirely lost to him.

Since most of the observers of *Mars* at present reside between longitudes 15° E. and 115° W., many valuable facts regarding the planet may pass unrecorded, and be permanently lost to science. To overcome this difficulty it is necessary to secure observations as far as may be in all longitudes around our globe. This idea has been very clearly expressed by M. JARRY-DESLOGES in his "Observations des Surfaces Planetaires," **2**, 184.

It is proposed to issue the reports free, to all taking an active part in the observations. They will be forwarded regularly after the receipt by the writer of the first observations and drawings. In Report No. 9 herewith transmitted, suggestions are made as to the regions where changes may be expected, and the time when it is thought that they may occur, but much is likely to happen on the planet which cannot be foreseen. Drawings should be made at least once a week, and more frequently if possible, when the planet is nearest us. Micrometer observations are very desirable from those who are properly equipped and able to reduce the corresponding latitudes and longitudes. Excellent results may be obtained with an 8-inch telescope, but even one of 5 inches aperture will give results of value. Opposition occurs February 9, 1916. Diameter of the disk 15″.0. Little of value can be secured before October 1st, diameter 6″.5, but observations made between that date and the middle of January will have exceptional value, because, since it is necessary to observe shortly before sunrise in order to secure them, they will naturally be few in number. Moreover, it is believed that the changes occurring upon the planet will be more marked during that period than later. Drawings made at a lower altitude than 30° are of little use. On account of the distance of the planet, observations made before December 1st, diameter 9″.5, while they may be of much value, will be a little discouraging, owing to the lack of detail. For these reasons observers will not be asked to begin observing regularly before January, but observations of the *Syrtis Major* made on those dates in October, November, and December indicated in Table I of Report No. 9 would be of exceptional interest.

A monthly report including drawings is desired from each observer, but it is not wished to interfere in any way with the sending of reports and drawings from those who are associated with the British Astronomical Association to their Section. Indeed, it is not in most cases expected to publish the drawings, but only to study them, especially those exhibiting change. After these studies have been completed, at the end of the opposition, the drawings will be returned to those who request it. It is recommended that the observer secure a copy of the *Nautical Almanac*.

Suggestions and remarks regarding the observations will at all times be welcomed, and in order to make the research mutually helpful, information regarding any detail as it appeared at other stations on previous dates will be supplied as far as possible on request. For this reason, as well as to aid in the monthly publication of information, it is very desirable that observers should report as regularly as possible every month.

It is suggested that where two or more available observers exist in any locality they should combine their efforts, using the telescope at different times, and thus increasing the number of observations. While they might properly compare their results before transmitting them, each should take especial care not to be unduly influenced by the drawings of the other.

Copies of *Popular Astronomy* containing the early reports may be obtained if desired by application to Professor H. C. WILSON, "Popular Astronomy," Northfield, Minnesota, U.S.A.

Are you able, and do you feel inclined to take part in this investigation?

If not, will you suggest the matter to some one in your vicinity, or associated with you, who would be able to do so.

What telescopic aperture is available for the research, and is it a refractor or a reflector?

Respectfully yours,

W. H. PICKERING.

HARVARD ASTRONOMICAL STATION,
MANDEVILLE, JAMAICA, B. W. I.,
July 1, 1915.

The ASTRONOMISCHE NACHRICHTEN has just entered upon its 201st volume. In the first number of this volume (No. 4801), the present editor, Professor Dr. H. KOBOLD, briefly reviews the long and honorable history of the journal, which, under the editorship successively of SCHUMACHER (the founder), PETERSEN and HANSEN, C. A. F. PETERS, C. F. W. PETERS, KRUEGER, KREUTZ and KOBOLD, has been a powerful factor in the development of modern astronomy. Tho many other strong journals have been established in more recent years and many observatories have adopted the plan of publishing series of Bulletins, the *Astronomische Nachrichten* still holds a high place in astronomical literature and it is to be hoped that a long and useful future lies before it.

MINUTES OF THE MEETING OF THE BOARD OF DIRECTORS OF THE ASTRONOMICAL SOCIETY OF THE PACIFIC, HELD AT THE STUDENTS' OBSERVATORY, BERKELEY, CALIFORNIA, ON JUNE 29, 1915, AT 7:30 P. M.

There were present President R. G. AITKEN and Directors CUSHING, BURCKHALTER, COSTA, CORNISH and RICHARDSON.

Mr. ALFRED S. MAYLOR, of Oak Harbor, Washington, and Mr. S. I. ALLARD, of Eureka, California, were elected members of the Society.

A suggestion was made by President AITKEN, representing the Publication Committee, that the next two issues of the *Publications* be consolidated into one issue, to appear about the last of August. This would include the issues generally printed for the months of August and October. Two reasons were given for this suggestion, one being that of economy and the other being the desirability of introducing some special features into the number which will follow and report the proceedings of the various scientific societies which will meet in the vicinity of San Francisco during the month of August. By authorization of the Board, the matter was left to the discretion and judgment of the Publication Committee.

A letter was read from Secretary of State LANSING, stating that the Bruce Medal, awarded during the past year to Dr. W. W. CAMPBELL, had been received from the French Mint